

Form PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 018733/0942	SERIAL NO. 09/382,186
<b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)		APPLICANT Hans J. HANSEN et al.	
		FILING DATE 8/23/1999	GROUP ART UNIT 1648 <b>1644</b>

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

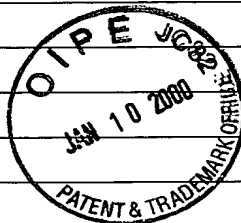
Jad	A1	HAWKINS, et al.; "Delivery of Radionuclides to Pretargeted Monoclonal, Antibodies Using Dihydrofolate Reductase and Methotrexagte in an Affinity System,"; <i>Cancer Research</i> ; Vol. 53; May 1993; pp. 2368-2373.
		GOODWIN et al.; "Pre-Targeted Immunoscintigraphy of Murine Tumors with Indium-111-Bifunctional Haptens,"; <i>J. Nucl. Med.</i> ; Vol. 29; 1998; pp. 226-234.
		STICKNEY et al.; "Bifunctional Antibody: A Binary Radiopharmaceutical Delivery System for Imaging Colorectal Carcinoma,"; <i>Cancer Research</i> ; Vol. 51; December 15, 1991; pp. 6650-6655.
Jad	A4	GAUTHEROT et al.; "Therapy for Colon Carcinoma Xenografts with Bispecific Antibody-Targeted, Iodine-131-Labeled Bivalent Hapten,"; <i>Cancer Supplement</i> ; Vol. 80; 1997; pp. 2618-2623.
		BARBET et al.; "Radioimmunodetection of Medullary Thyroid Carcinoma Using Indium-111 Bivalent Hapten and Anti-CEA X Anti-DTPA-Indium,"; <i>The Journal of Nuclear Medicine</i> ; Vol. 39, No. 7; July 1998.
Jad	A6	KRANENBORG et al.; "Development and Characterization of Anti-Renal Cell Carcinoma x Antichelate Bispecific Monoclonal Antibodies for Two-Phase Targeting of Renal Cell Carcinoma,"; <i>Cancer Research Supplement</i> ; Vol. 55; December 1, 1995; pp. 5864s-5867s.
		<del>CHERRY et al.; MICROPET 1: Performance Evaluation of a Very High Resolution Pet Scanner Proceedings of the 44th Annual Meeting Scientific Papers, Vol. 38, No. 5, May 1997 Supplement.</del>

**RECEIVED**

EXAMINER <i>David A. Saunders</i>	DATE CONSIDERED 5/5/01	JAN 11 2000
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\* EXAMINER: Initial if citation considered, whether or not citation is in conformance and not considered. Include any copy of this form with next communication to applicant.

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<b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)				APPLICANT Hans J. HANSEN et al.			
				FILING DATE 8/23/1999		GROUP ART UNIT <del>1648</del> 1649	
<b>U.S. PATENT DOCUMENTS</b>							
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<b>FOREIGN PATENT DOCUMENTS</b>							
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
<i>See</i>	A8	SCHUHMACHER et al.; "Multistep Tumor Targeting in Nude Mice Using Bispecific Antibodies and a Gallium Chelate Suitable for Immunoscintigraphy with Positron Emission Tomography,"; <i>Cancer Research</i> ; Vol. 55; January 1, 1995; pp. 115-123.					
		SHARKEY et al.; "Development of a Streptavidin--Anti- Carcinoembryonic Antigen Antibody, Radiolabeled Biotin Pretargeting Method For Radioimmunotherapy of Colorectal Cancer. Studies in A Colon Cancer Xenograft Model,"; <i>Bioconjugate Chemical</i> ; Vol. 8, No. 4; 1997.					
EXAMINER		DATE CONSIDERED					
<i>David A. Henderson</i>		<i>5/5/01</i>					
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Sheet 1 of 2		FORM PTO 1449 (modified)		ATTY DOCKET NO.		SERIAL NO.	
U.S. DEPARTMENT OF COMMERCE		PATENT AND TRADEMARK OFFICE		018733/0942		09/382,186	
Date Submitted to PTO:		JUNE 12, 2000		APPLICANT		Hansen et al.	
FILING DATE		August 23, 1999		GROUP		1648-1644	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Ans	B1	5,591,828	1/7/97	Bosslet et al.	530	387.3	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
Ans	B2	WO 96/04313	2/15/96	WORLD	—	—	English
Ans	B3	0 623 675 A1	11/10/93	EPO	—	—	English
Ans	B4	0 419 387 A1	9/20/90	EPO	—	—	French
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
Ans	B5	XP-002120437	K. Bosslet et al., "Generation of bispecific monoclonal antibodies for two phase radioimmunotherapy", Macmillan Press Ltd., British Journal of Cancer, (1991) 63/5, 681-686				
Ans	B6	XP-002120435	Marion H.G.C. Kranenborg et al., "Development and Characterization of Anti-Renal Cell Carcinoma x Antichelate Bispecific Monoclonal Antibodies for Two-Phase Targeting of Renal Cell Carcinoma" Cancer Research, (Dec. 1995), 55 (23 Supp.), 5864S-5867S				
Ans	B7	XP-002120770	Corine Manetti et al., "Intracellular Uptake and Catabolism of Anti-IgM Antibodies and Bi-Specific Antibody-Targeted Hapten by B-Lymphoma Cells", International Journal of Cancer, (1995), 63(2), 250-256				
Ans	B8	XP-002116384	Manuel Bardies et al., "Bispecific Antibody and Iodine-131-Labeled Bivalent Hapten Dosimetry in Patients with Medullary Thyroid or Small-Cell Lung Cancer", Journal of Nuclear Medicine, Vol. 37, (Nov. 1996), 1853-1859				
Ans	B9	XP-002120771	J. Barbet et al., "Radioimmunotherapy of LS174T Colon Carcinoma in Nude Mice Using an Iodine-131-Labeled Bivalent Hapten Combined with An Anti-CEA x Anti-Indium-DTPA Bispecific Antibody", Tumor Biology, (Sept. 1997), Vol. 18, No. Supp. 2, 31				
Ans	B10	XP-002110873	Emmanuel Gautherot, "Therapy for Colon Carcinoma Xenografts with Bispecific Antibody-Targeted, Iodine-131-Labeled Bivalent Hapten", American Cancer Society, Vol. 80, No. Supp. 12, (Dec. 1997), 2618-2623				
Ans	B11	XP-002120436	Marion H.G.C. Kranenborg et al., "Two-Step Radio Immunotargeting of Renal-Cell Carcinoma Xenografts in Nude Mice with Anti-Renal-Cell-Carcinoma x Anti-DTPA Bispecific Monoclonal Antibodies", International Journal of Cancer, (Jan. 1998), 75 (1), 74-80				
EXAMINER				DATE CONSIDERED			
D. G. Saunders				5/5/01			

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all use questions or chemical compounds or no info is given

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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.  
018733/0942

SERIAL NO.  
09/382,186

Date Submitted to PTO:  
June 12, 2000

APPLICANT  
Hansen et al.

FILING DATE  
August 23, 1999

GROUP  
1648-1644

### U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

### FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

### OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>sub</i>	B12	XP-002120769	Francoise Kraeber-Bodere et al., "Phase I/II Trial of Two-Step Radioimmunotherapy in Medullary Thyroid Cancer (MTC) Using Bispecific Anti-CEA/Anti-DTPA-In Antibody and Iodine-131-Labeled Bivalent Hapten", Journal of Nuclear Medicine, (May 1998), Vol. 39, No. 5 Supp., 246
<i>sub</i>	B13	XP-002120434	Makoto Hosono et al., "Biodistribution and Dosimetric Study in Medullary Thyroid Cancer Xenograft Using Bispecific Antibody and Iodine-125-Labeled Bivalent Hapten", Journal of Nuclear Medicine, (Sep. 1998), 39 (9), 1608-1613
<i>sub</i>	B14	XP-002120432	Emmanuel Gautherot et al., "Delivery of Therapeutic Doses of Radioiodine Using Bispecific Antibody-Targeted Bivalent Haptens", Journal of Nuclear Medicine, (Nov. 1998), 39 (11), 1937-1943
<i>sub</i>	B15	XP-002120433	Francoise Kraeber-Bodere et al., "Bispecific Antibody and Bivalent Hapten Radioimmunotherapy in CEA-Producing Medullary Thyroid Cancer Xenograft", Journal of Nuclear Medicine, (Jan. 1999), 40 (1), 198-204
<i>sub</i>	B16	XP-002120429	H. Karacay et al., "Studies on a humanized anti-CEA x murine anti-[In-DTPA] bispecific antibody construct for radioimmunotherapy of CEA-positive tumors", American Assoc. for Cancer Research Annual Meeting (Mar. 1999), Vol. 40, 644
<i>sub</i>	B17	XP-002120430	H. Karacay et al., "Pretargeting Studies with Humanized Anti-CEA x Murine Anti-[In-DTPA] Bispecific Antibody Construct and Tc-99m/ Re-188 Labeled Peptide", Journal of Nuclear Medicine, (May 1999), Vol. 40, No. 5 Supp., 225

EXAMINER *David A. Seumeler*

DATE CONSIDERED *5/5/01*

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SHEET 1 of 1

FORM PTO 1449 (modified)

ATTY DOCKET NO.  
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09/337,736

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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEAPPLICANT  
Hans J. HANSEN *et al.*FILING DATE  
June 22, 1999GROUP  
1643

Date Submitted to PTO: October 3, 2000

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	TECH CENTER 1600/2900 FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/OR ABSTRACT
<i>sub</i>	A1	EP 0263046	4/6/88			
<i>sub</i>	A2	EP 0511011A	10/28/92			
	A3	WO 9808875	3/5/98			

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>sub</i>	A4	B.T. McGuinness <i>et al.</i>	"Phage diabody repertoires for selection of large numbers of bispecific antibody fragments," <i>Nature Biotechnology</i> , 14:1149-1154 (1996).
<i>sub</i>	A5	M. Alt <i>et al.</i>	"Novel tetraivalent and <sup>bispecific</sup> IgG-like antibody molecules combining single chain diabodies with the immunoglobulin gamma-1 or CH3 region," <i>FEBS LETT</i> , 454: 90-94 (1999).
<i>sub</i>	A6	T.B. Olafsen <i>et al.</i>	"IgM secretory tailpiece drives multimerisation of bivalent scFv fragments in eukaryotic Cells," <i>Immunotechnology</i> , 4(2):141-153 (1998).
<i>sub</i>	A7	S.M. Kipriyanov <i>et al.</i>	"Bispecific tandem diabody for tumor therapy with improved antigen binding and pharmacokinetics," <i>J. Mol. Biol.</i> , 293(1):41-56 (1999).

EXAMINER

*Daniel A. Sammler*

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